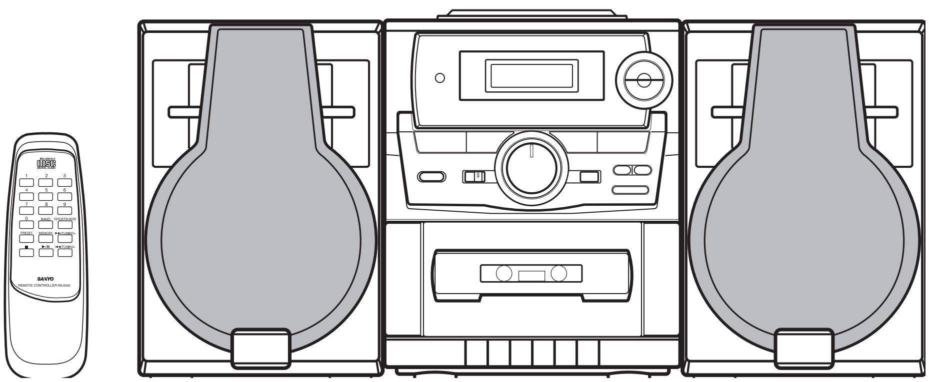
FILE NO.

Service Manual

CD Portable Radio Cassette Recorder

CWM-460 (US) (MX)
MCD-S925 (CA)
MCD-S925F (XE) (AU) (PA)



SPECIFICATIONS

PRODUCT CODE No.
164 074 00 CWM-460/US
164 074 05 CWM-460/MX
164 074 01 MCD-S925/CA
164 074 02 MCD-S925F/XE
164 074 03 MCD-S925F/AU
164 074 04 MCD-S925F/PA

(TAPE DECK SECTION)

Recording System .... AC bias, 4-channel stereo
Erasing System .... Magnet erase
Tape speed .... 4.75 cm/sec.
Fast forward and
Rewind time .... Approx. 110 sec. (C-60 tape)
Frequency range .... 80 - 12,000 Hz (Normal tape)

(CD PLAYER SECTION)

Channels .... 2 channels stereo
S/N ratio .... 73 dB
Wow & Flutter........................ Below measurable limits
Sampling frequency .... 44.1 kHz
Quantization .... 16 bits linear/ch
Pickup light source .... Semi-conductor laser
Pickup wave length .... 790 nm
Laser output .... Continuous wave max. 0.6 mW

(RADIO SECTION)

Tuning range .... FM : 87.9 - 107.9 MHz(CA,US,MX)
: 87.5 - 108 MHz(PA,AU,XE)
AM : 520 - 1,710 kHz
(10 kHz step)(PA,CA,MX)
:522 - 1611 kHz
(9 kHz step)(PA,AU,XE)
Antenna .... Built-in ferrite bar and telescopic rod
.... antenna

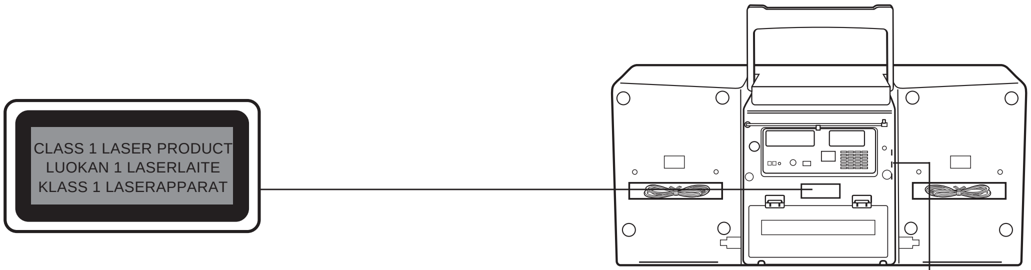
(GENERAL SECTION)

Power output .... 3W/ch (DC max)
Speaker .... 12 cm x 2. Piezoelectric x 2 (4 ohms)
Terminal impedance .... PHONES : 32 ohms
Power source .... AC : 120V, 60Hz (CA,US,MX)
: 230V, 50Hz (XE)
: 230-240V, 50Hz (AU)
: 110-120/220-240V, 50/60Hz (PA)
DC : 12 V (8 "R20/D" batteries)
Dimensions .... 615 (W) x 275 (H) x 253 (D) mm
Weight (approx.).................... 6 kg (Not including batteries)

Specifications subject to change without notice.

REFERENCE No. SM5810217

LASER BEAM SAFETY PRECAUTION



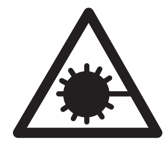
CAUTION-INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.

ADVARSEL-USYNLIG LASER STRÅLING VED ÅBNING, NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION, UNDGÅ UDS ÆTTELSE FOR STRÅLING.

VARNING-OSYNLIG LASER STRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRR ÄR URKOPPLAD. STRÅLEN ÄR FARLIG.

VORSICHT! -UNSICHTBARE LASERSTRAHLUNG TRITT AUS, WENN DECKEL GEÖFFNET UND ENN SICHERHEITSVERRIEGELUNG ÜBERBRÜCKT IST. NICHT, DEM STRAHL AUSSETZEN.

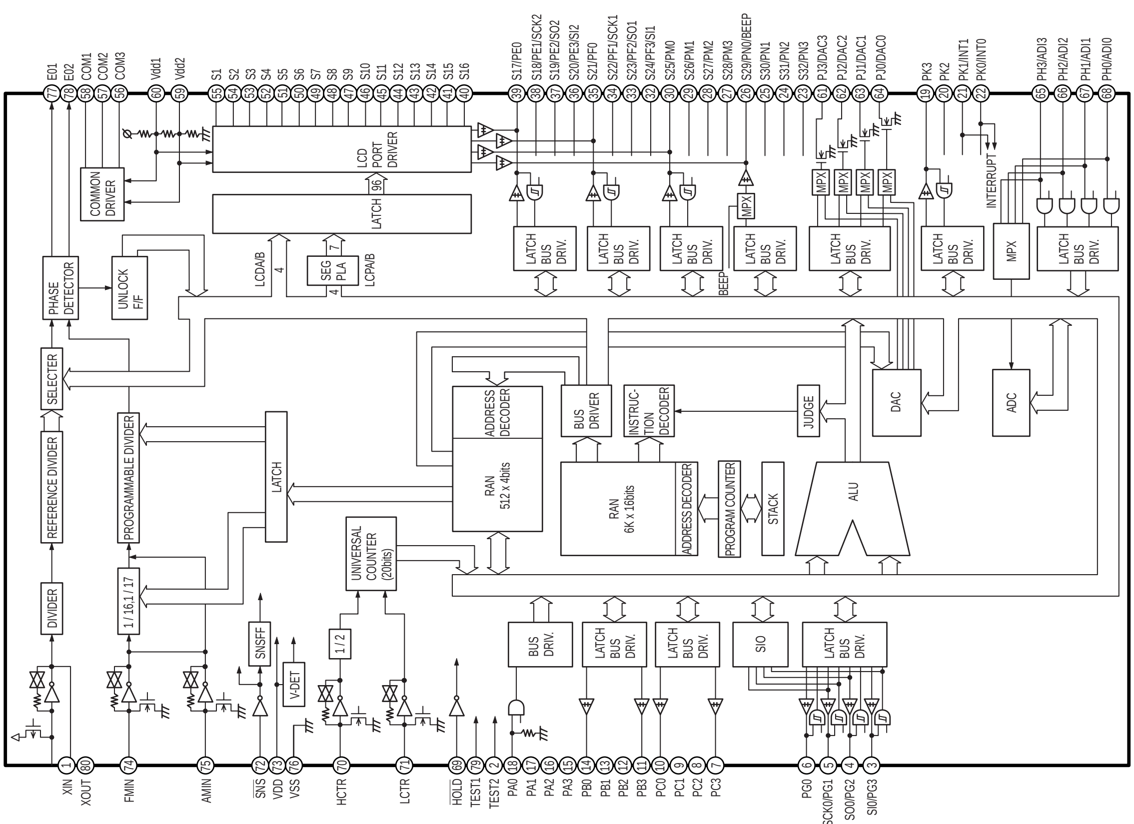
VARO !-Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.



CAUTION – USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED IN THE OPERATING INSTRUCTIONS MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.
THE PRODUCT SHOULD NOT BE ADJUSTED OR REPAIRED BY ANYONE EXCEPT PROPERLY QUALIFIED PERSONNEL.

IC BLOCK DIAGRAM & DESCRIPTION

IC402 LC723369557 (LCD Driver)

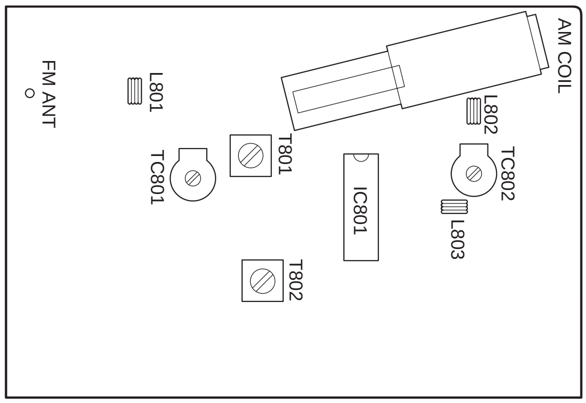


TUNER ADJUSTMENTS

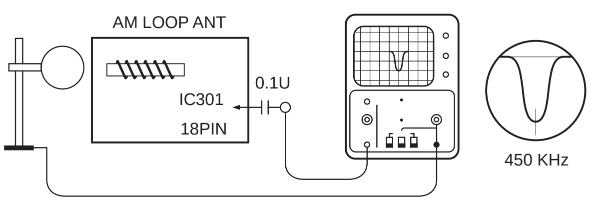
- Use a plastic screw driver for adjustments.
- Adjust the intermediate frequency of AM and FM to the frequency of ceramic filter.
- Set of unit

Supply voltage	: DC 12V
Speaker	: 8 ohms
Standard output	: 50 mW
Function switch	: RADIO

a.PARTS LOCATION



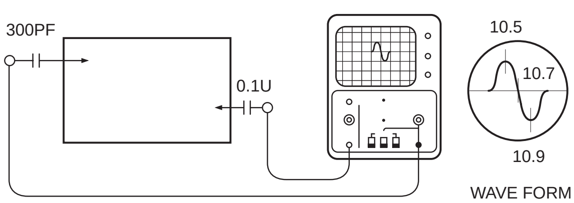
(1). AM IF ADJUSTMENT



(FIG.1)

BAND	STEP	SING. FRE.	RADIO SETTING	ADJUST-MENT	REMARKS
MW-IF	1	450KHz		T802	ADJUST FOR BEST IF WAVE FORM

(2). FM IF ADJUSTMENT

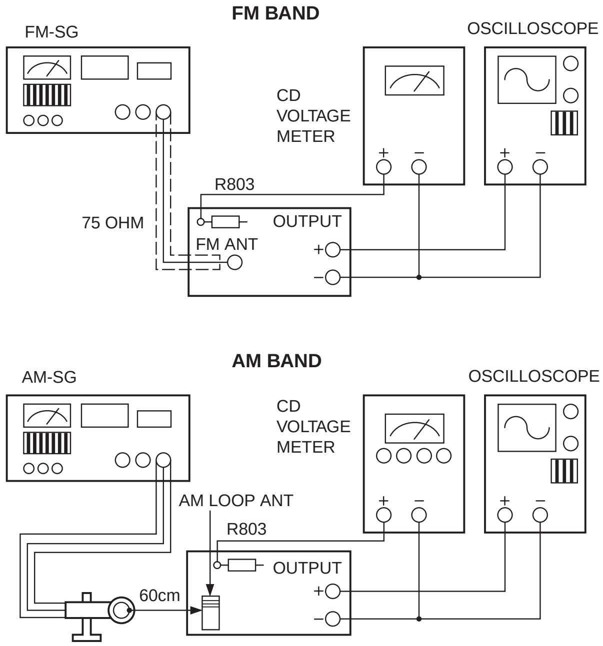


(FIG.2)

BAND	STEP	SING. FRE.	RADIO SETTING	ADJUST-MENT	REMARKS
FM-IF	1	10.7MHz		- - - -	- - - -

TUNER ADJUSTMENTS

(3). TUNING FREQUENCY RANGE ADJUSTMENT



(FIG.3)

(EUROPE/ASIA)

FM Band: Set the internal modulation of Singnal generator to 1 KHz Dev. 22.5KHz

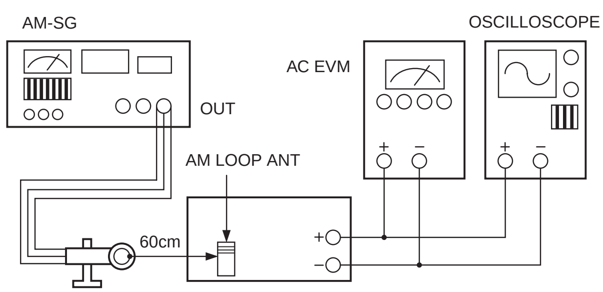
NO.	BAND	SING. FRE.	ADJUST FOR	ADJUSTMENT
1	FM	87.5MHz	CHECK 1.5V+-0.1V	L803
2	FM	108MHz	CHECK 5.0V+-0.1V	- - - -
3	REPEAT STEP 1 AND 2 SEVERAL TIMES			

AM Band: Set the internal modulation of Singnal generator to 30%1KHz

NO.	BAND	SING. FRE.	ADJUST FOR	ADJUSTMENT
4	AM	520KHz	CHCK 1.5V+-0.1V	T801
5	AM	1710KHz	CHECK 7.5V+-0.2V	- - - -
6	REPEAT STEP 4 AND 5 SEVERAL TIMES			

(4). AM TRACKING ADJUSTMENT

Signal Generator ...... Connects to the AM ANT. Coil througt the loop antenna.
Adjust for the indication of VTVM of the wave form scope to be maximum.



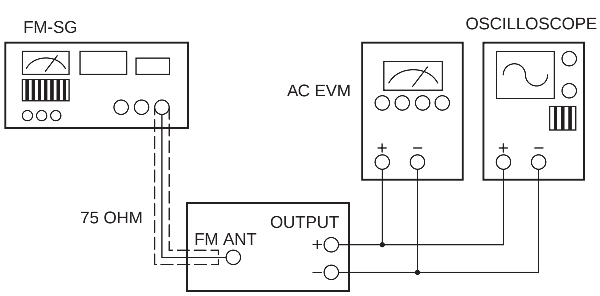
(FIG.4)

(AMERICA)

BAND	STEP	SING. FRE.	ADJUST FOR	ADJUSTMENT
AM	1	600KHz	MAXIMUM SENSITIVITY	L805 (ANT COIL)
	2	1400KHz	MAXIMUM SENSITIVITY	TC801
	3	REPEAT STEP 4 AND 5 SEVERAL TIMES		

(5). FM RF TRACKING ADJUSTMENT

Signal Generator ...... Connects to the FM ANT JACK (FM IN) through the dummy.



(FIG.5)

BAND	STEP	SING. FRE.	ADJUST FOR	ADJUSTMENT
FM	1	90MHz	MAXIMUM SENSITIVITY	L802
	2	106MHz	MAXIMUM SENSITIVITY	TC802
	3	REPEAT STEP 1 AND 2 SEVERAL TIMES		

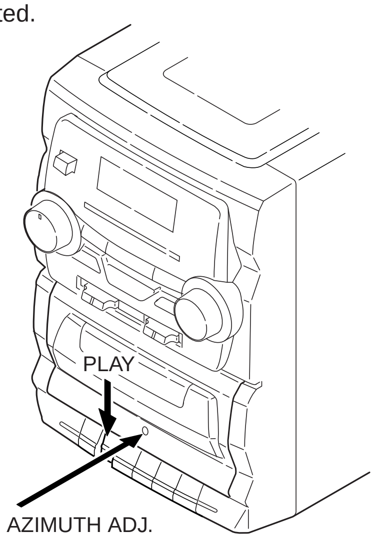
TAPE DECK ADJUSTMENTS

1. HEAD REPLACEMENT

- After replacement, demagnetize the heads by using a degausser.
- Be sure to clean the heads before attempting to make any adjustments.
- All wiring should be returned to the original position after work is completed.

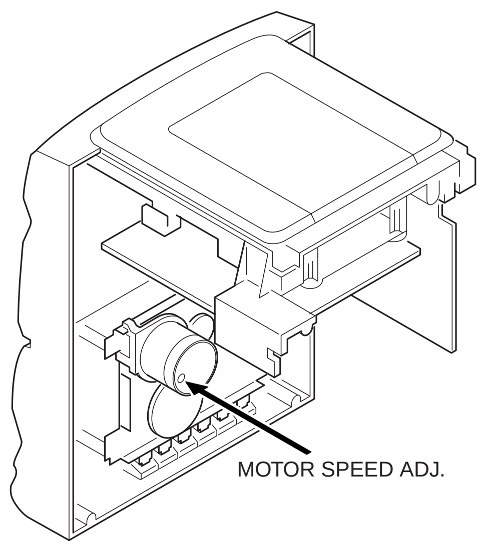
2. HEAD AZIMUTH ADJUSTMENT

(1) Load the test tape(VTT-703, etc., 10 kHz) for azimuth adjustment.
(2) Press the **PLAY** button.
(3) Use a cross-tip screwdriver to turn the screw for azimuth adjustment so that the left and right output are maximized.
(4) Press the **STOP** button.
(5) After completion of the adjustment, use thread lock(TB-1401B) to secure the azimuth-adjustment screw.



3. MOTOR SPEED ADJUSTMENT

(1) Insert the test tape(TCC-119, etc., 3,000 Hz).
(2) Press the **PLAY** button.
(3) Use a flat-tip screwdriver to turn the SVR(located inside the rear of the motor) to adjust SVR so that the frequency counter become 3,000 Hz.



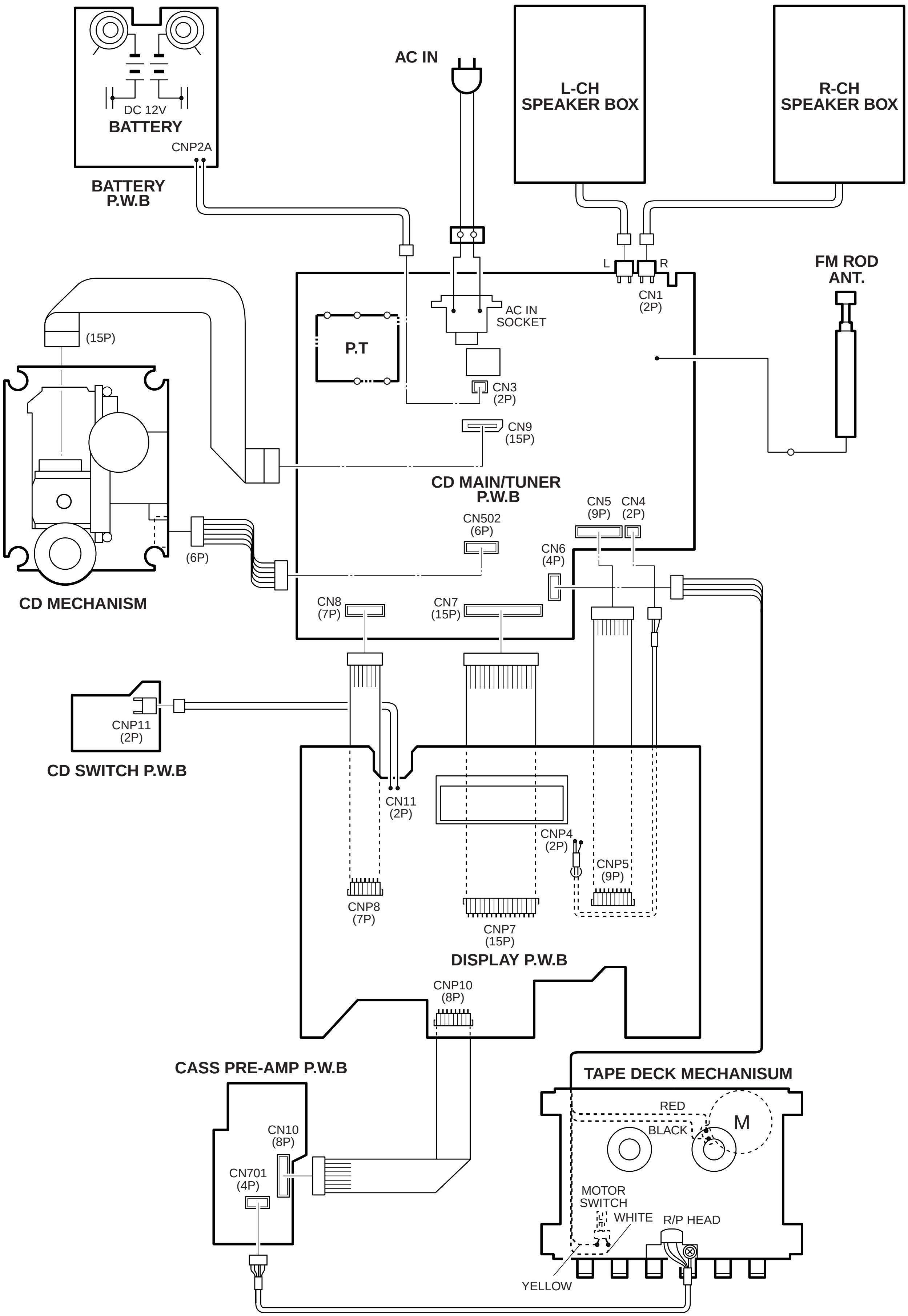
4. CHECKING THE MECHANISM TORQUES AND TENSION

- Clean the head, capstan and pinch roller before making any measurement.

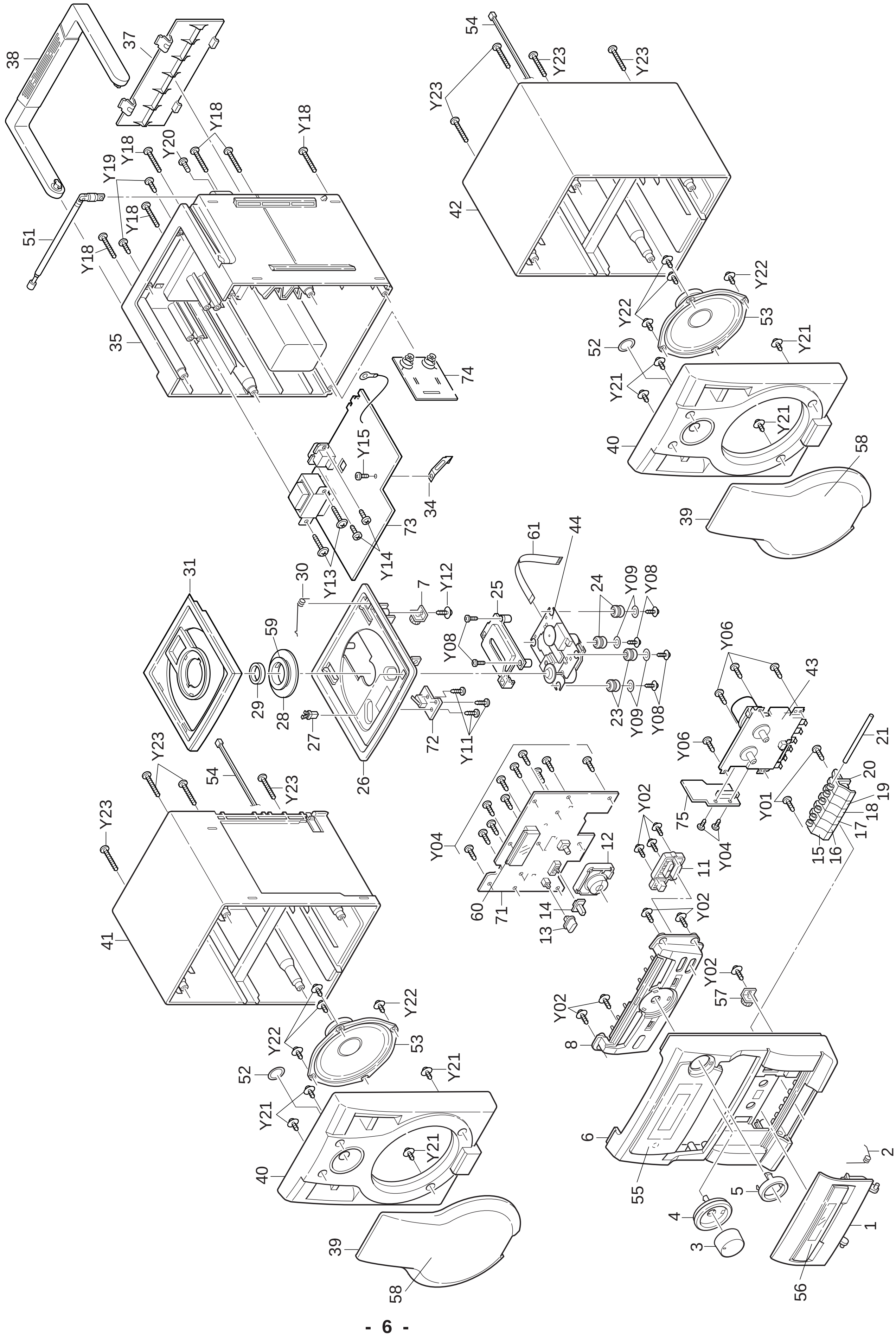
Measurement	Take-up torque	Back tension
Test tape measurement	PLAY : CT-120M FF,REW : CT-F	PLAY : CT-W
PLAY	30 - 70 gr.cm	1.0 - 6.0 gr.cm
F.FWD	55 gr.cm or more.	-----
REW	55 gr.cm or more.	-----

WIRING CONNECTION

This is a basic wiring connection .



EXPLODED VIEW(CABINET & CHASSIS)



PARTS LIST

PRODUCT SAFETY NOTICE

EACH PRECAUTION IN THIS MANUAL SHOULD BE FOLLOWED DURING SERVICING. COMPONENTS IDENTIFIED WITH THE IEC SYMBOL ⚠ IN THE PARTS LIST AND THE SCHEMATIC DIAGRAM DESIGNATE COMPONENTS IN WHICH SAFETY CAN OF SPECIAL SIGNIFICANCE. WHEN REPLACING A COMPONENT IDENTIFIED , USE ONLY THE REPLACEMENT PARTS DESIGNATED, OR PARTS WITH THE SAME RATINGS OF RESISTANCE, WATTAGE OR VOLTAGE THAT ARE DESIGNATED IN THE PARTS LIST IN THIS MANUAL. LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS MUST BE MADE TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE PRODUCT TO THE CUSTOMER.

CAUTION : Regular type resistors and capacitors are not listed. To know those values, refer to the schematic diagram.
Regular type resistors are less than 1/4W carbon type and 0 ohm chip resistors.
Regular type capacitors are less than 50V and less than 1000µF of Ceramic type and Electrolytic type.

PACKING & ACCESSORIES

REF.NO.	PART NO.	DESCRIPTION
	645 036 3429	CAUTION SHEET(MX)(US)
	645 049 6318	POLYFOAM TOP
	645 049 6325	POLYFOAM BOTTOM
	645 020 3626	POLBAG,FOR AC CORD(PA)(XE)(AU)
	645 049 6349	CARTON BOX(MX)(US)
	645 049 7186	CARTON BOX(AU)
	645 049 7193	CARTON BOX(XE)
	645 049 6370	CARTON BOX(CA)
	645 049 8152	CARTON BOX(PA)
	645 049 6356	INSTRUCTION MANUAL(MX)(US)
	645 049 7162	INSTRUCTION MANUAL(AU)
	645 049 7179	INSTRUCTION MANUAL(XE)
	645 049 6363	INSTRUCTION MANUAL(CA)
	645 049 8145	INSTRUCTION MANUAL(PA)
⚠	645 037 8454	AC LINE CORD,VDE APP(XE)
⚠	645 037 9468	AC CORD SET,VDE APP(PA)
⚠	645 038 2048	AC CORD SET,UL APP(MX)(CA)(US)
⚠	645 022 1576	AC LINE CORD SET,SAA APP(AU)
	645 047 8703	REMOTE CONTROL, HANDSET

CABINET & CHASSIS

REF.NO.	PART NO.	DESCRIPTION
1	645 049 5953	LID CASS(MX)(US)
1	645 049 5960	LID CASS(AU)(CA)(XE)(PA)
2	645 049 6240	CASS DOOR SPRING
3	645 049 6059	VOLUME KNOB,ROTARY
4	645 049 6189	VOLUME KNOB RING
5	645 049 6196	TUNING KNOB RING
6	645 049 5878	CABINET FRONT
7	645 025 1542	ASSY,GEAR CD DOOR
8	645 049 5557	ASSY MINI PANEL(PA)(XE)(AU)(CA)
8	645 049 5540	ASSY MINI PANEL(MX)(US)
11	645 049 6110	BUTTON SET,MEMO/PRESET/BAND
12	645 049 6073	TUNING BUTTON,UP/DOWN PUSH
13	645 049 6080	BASS BUTTON
14	645 049 6066	SLIDE KNOB, FUNTION CD/TAPE/RADIO
15	645 049 6127	CASS BUTTON REC
16	645 049 6134	CASS BUTTON PLAY
17	645 049 6141	CASS BUTTON REW
18	645 049 6158	CASS BUTTON FFWD
19	645 049 6165	CASS BUTTON STOP/EJE
20	645 049 6172	CASS BUTTON PAUSE
21	645 049 6257	CASS BUTTON SHAFT
23	645 049 6486	HARD RUBBER,NO:RY-105112 DA11
24	645 049 6479	SOFT RUBBER,NO:RY-105118 DA11
25	645 025 2556	CD BRACKET 9503
26	645 049 6219	CD BRACKET, NEVER TOUCH THE LENS
27	645 049 6226	SW CD LOCKER,CD BKT F1Q61K
28	645 025 2549	MAGNET NMB FERRITE CORES
29	645 025 2341	MAGNET FELT CD
30	645 049 6493	CD DOOR SPRING
31	645 049 5533	ASSY CD LID
34	645 049 6264	BKT PCB MOUNTING,MAIN PCB
35	645 049 8084	ASSY CABINET REAR,PA(PA)
35	645 049 5526	ASSY CABINET REAR (MX)(XE)(AU)(CA)(US)
37	645 047 8758	BATTERY LID
38	645 049 6011	HANDLE
39	645 049 5915	SPK NET
40	645 049 5922	SPK PANEL FRONT
41	645 049 5496	ASSY BOX REAR L
42	645 049 5502	ASSY BOX REAR R
44	645 049 6462	CD MECHANISM DA11N
52	645 049 5786	BUZZER
53	645 049 5779	5" SPK,W/BLACK CAP
54	645 049 5694	2P J WIRE AWG22UL,SPK TO MAIN
55	645 049 6004	DISPLAY LENS,SANYO
56	645 049 5984	CASS DOOR LENS
57	645 026 6454	ASSY,CASS GEAR
58	645 049 7216	GRILL CLOTH,RC-801K-19(PA)(XE)
58	645 049 6516	GRILL CLOTH,RC-801K-19/UL(CA)
58	645 049 6509	GRILL CLOTH,RC-801E/UL (MX)(AU)(US)
59	645 025 2587	HOLDER MAGNET
60	645 049 6233	BKT LCD DISPLAY

FIXING PARTS

REF.NO.	PART NO.	DESCRIPTION
Y01	645 036 2644	SCR 3X8,CASS KEY SHAFT
Y02	645 016 5078	SCREW,MAIN PANEL
Y04	645 014 1911	SCREW,CD KEY BD TO F PANEL
Y06	645 016 5078	SCREW,CASS MECHA
Y08	645 049 6271	SCR 2.6 X 10,CD MECHA
Y09	645 025 2433	FIBER WASHER,FOR CD MECHA
Y11	645 016 5078	SCREW,CD SW BD
Y12	645 049 6288	SCR 3 X 8,EJECT GEAR HOLDER
Y13	645 025 2426	SCREW 3X12,PWR TRANS
Y14	645 018 3690	SCREW,FOR AC SKT
Y15	645 049 6271	SCR 2.6 X 10,MAIN PCB
Y18	645 049 6295	SCR 3 X 25,BOTTOM CAB
Y19	645 025 2402	SCREW 2X8,CD MECHA BKT
Y20	645 036 2644	SCR 3X8,ANT
Y21	645 018 0521	SCREW,SPK NET
Y22	645 025 2372	SCREW 3X8,SPK BOX
Y23	645 026 6218	SCREW 3X20,SPK BOX

PARTS LIST

ELECTRICAL-PARTS

REF.NO.	PART NO.	DESCRIPTION
51	645 049 5847	ROD ANTENNA
61	645 049 5830	15P FILM CABLE, CN501 TO CD MECHA
	645 037 8720	SW HOUSING,AC SW COVER(PA)
	645 037 9451	SWITCH SS12J11G7,SS-12J11 G7(PA)
	645 041 6453	4P 3 CORE SHIELD W, TAPE HEAD TO CNP701
	645 017 0195	CABLE TIE 4",MOTOR

DISPLAY, CTL KEY P.W.BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
71	614 319 6815	ASSY,PWB DISPLAY, CTL KEY(Only initial)(AU)(XE)(PA)
71	614 319 5245	ASSY,PWB DISPLAY, CTL KEY(Only initial)(MX)(US)(CA)
C0102	403 060 6904	POLYESTER 3300P M 50V
C0202	403 060 6904	POLYESTER 3300P M 50V
CN011	645 026 8816	2P WAFFR
D0101	645 016 9250	RECTIFIER
D0302	645 041 4503	DIODE 1SS133
D0303	645 016 8956	SW DIODE 1N4148
D0304	645 016 8956	SW DIODE 1N4148
D0305	645 016 8956	SW DIODE 1N4148
D0317	645 016 8956	SW DIODE 1N4148
D0318	645 016 8956	SW DIODE 1N4148
D0319	645 016 8956	SW DIODE 1N4148
D0320	645 016 8956	SW DIODE 1N4148
D0321	645 016 8956	SW DIODE 1N4148
D0322	645 016 8956	SW DIODE 1N4148
D0323	645 016 8956	SW DIODE 1N4148
D0324	645 016 8956	SW DIODE 1N4148
D0402	645 041 4503	DIODE 1SS133
D0403	645 041 4503	DIODE 1SS133
D0404	645 016 8956	SW DIODE 1N4148
D0405	645 041 4503	DIODE 1SS133
D0406	645 016 8956	SW DIODE 1N4148
IC401	645 041 4435	IC LC72336 9557
L0401	645 026 7857	AXIAL INDUCTOR
LD401	645 049 5854	LCD DISPLAY
Q0303	645 041 4459	TR 2SA1522
Q0304	645 026 8540	TRANSISTOR,2SC3916
Q0305	645 026 8540	TRANSISTOR,2SC3916
Q0306	645 026 8540	TRANSISTOR,2SC3916
Q0307	645 026 8540	TRANSISTOR,2SC3916
Q0308	645 016 9205	TRANSISTOR
Q0309	645 016 9205	TRANSISTOR
Q0310	645 016 9205	TRANSISTOR
Q0311	645 016 9205	TRANSISTOR
Q0312	645 016 9205	TRANSISTOR
Q0401	645 016 9205	TRANSISTOR
Q0402	645 016 9205	TRANSISTOR
Q0403	645 016 9205	TRANSISTOR
Q0404	645 016 9205	TRANSISTOR
RX401	645 036 2170	REMOTE RECEIVER, INFRARED MODOULE
SW101	645 049 5670	SW SLIDE,L/R CH SS43D01M10
SW102	645 036 2002	SWITCH PUSH, SBBS PS-22E08L-0 W/LOCK
SW401	645 041 4596	TACT SW KTL-TC-0103,PRESET
SW402	645 041 4596	TACT SW KTL-TC-0103,BAND
SW403	645 041 4596	TACT SW KTL-TC-0103,TUNER
SW404	645 041 4596	TACT SW KTL-TC-0103,BACK
SW405	645 041 4596	TACT SW KTL-TC-0103,STOP
SW406	645 041 4596	TACT SW KTL-TC-0103,PLAY
SW407	645 041 4596	TACT SW KTL-TC-0103,TUNER
SW408	645 041 4596	TACT SW KTL-TC-0103,FWD
SW409	645 041 4596	TACT SW KTL-TC-0103,MEMORY
SW410	645 041 4596	TACT SW KTL-TC-0103,REPEAT
VR101	645 036 3122	ROTARY VR,XV0141GPVN20FS-
XT401	645 049 5861	CRYSTAL 4.5MHZ
	645 049 5700	2P SHIELD WIRE AWG26, CNP4 TO CN4
	645 049 5717	7P F WIRE UL, DISPLAY CNP8 TO MAIN CN8
	645 049 5724	8P F WIRE UL, DISPLAY CNP10 TO MAIN CN
	645 049 5731	15P F WIRE UL, DISPLAY CNP7 TO MAIN CN7 (MX)(US)(CA)
	645 049 5755	10P TML, 9 JIS D SH, DISPLAY CNP5 TO MAIN CN5 (MX)(US)(CA)
	645 049 5755	10P TML, 9 JIS D SH, DISPLAY CNP5 TO MAIN CN5 (AU)(XE)(PA)
	645 049 5731	15P F WIRE UL, DISPLAY CNP7 TO MAIN CN7 (AU)(XE)(PA)

CD SWITCH P.W.BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
72	614 319 5252	ASSY,PWB CD SWITCH, CD DOOR SW(Only initial)
SW501	645 025 1818	MICRO SW LF-101-0,LF-101-0

CD MAIN/TUNER P.W.BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
73	614 319 5238	ASSY,PWB CD MAIN/TU (Only initial)(MX)(US)(CA)
73	614 319 6808	ASSY,PWB CD MAIN/TU (Only initial)(AU)(XE)
73	614 319 8031	ASSY,PWB CD MAIN/TU (Only initial)(PA)
C0110	403 057 3800	POLYESTER 0.1U M 50V,TU
C0111	403 125 5507	ELECT 1000U M 16V,TU
C0210	403 057 3800	POLYESTER 0.1U M 50V,TU
C0312	403 135 5702	ELECT 4700U M 25V,TU
C0501	403 057 3800	POLYESTER 0.1U M 50V,CD
C0502	403 057 3800	POLYESTER 0.1U M 50V,CD
C0519	403 059 4409	POLYESTER 2200P M 50V,CD
C0601	403 059 8902	POLYESTER 0.22U M 50V,CD
C0604	403 060 8908	POLYESTER 0.033U M 50V,CD
C0606	403 062 1105	POLYESTER 0.047U M 50V,CD
C0608	403 060 6904	POLYESTER 3300P M 50V,CD
C0609	403 058 6008	POLYESTER 0.15U M 50V,CD
C0612	403 056 8905	POLYESTER 1000P M 50V,CD
C0613	403 057 3800	POLYESTER 0.1U M 50V,CD
C0614	403 058 4004	POLYESTER 0.015U M 50V,CD
C0615	403 059 0708	POLYESTER 0.018U M 50V,CD
C0616	403 060 6904	POLYESTER 3300P M 50V,CD
C0621	403 060 6904	POLYESTER 3300P M 50V,CD
C0623	403 059 4409	POLYESTER 2200P M 50V,CD
C0625	403 060 8908	POLYESTER 0.033U M 50V,CD
C0630	403 057 1202	POLYESTER 0.01U M 50V,CD
C0817	403 058 1904	POLYESTER 1500P M 50V,TU
C0818	403 057 1202	POLYESTER 0.01U M 50V,TU
C0819	403 057 1202	POLYESTER 0.01U M 50V,TU
CF801	645 020 2988	CERAMIC DISCRIMINATOR
CF802	645 049 5762	CERAMIC FILTER
CF803	645 049 5762	CERAMIC FILTER
CF804	645 027 7672	CERAMIC FILTER
CN001	645 011 4533	2P WAFER,CNP1
CN002	645 011 4533	2P WAFER,CNP2
CN003	645 020 6771	2P WAFER,CNP3 BATT
CN004	645 016 9342	2P WAFER,CNP4

PARTS LIST

REF.NO.	PART NO.	DESCRIPTION
CN005	645 014 1232	9P WAFTR V-TYPE,CNP5
CN006	645 025 1917	4P WAFER,MOTOR
CN007	645 049 5748	15P WAFER,CNP7
CN008	645 027 7665	7P WAFER,CNP8
CN009	645 036 2118	15P CONNECTOR,FCC CD
CN501	645 016 9342	2P WAFER,CNP101
CN502	645 017 2052	6P WAFER,CD MOTOR
CYK01	403 002 4203	CERAMIC 0.1U M 25V, CD C502 TO C505
CYK02	403 002 4203	CERAMIC 0.1U M 25V, CD C511 TO C509
D0301	645 016 9250	RECTIFIER
D0306	645 016 9250	RECTIFIER
D0307	645 016 9250	RECTIFIER
D0308	645 016 9250	RECTIFIER
D0309	645 016 9250	RECTIFIER
D0312	645 016 8956	SW DIODE 1N4148
D0313	645 016 8956	SW DIODE 1N4148
D0314	645 016 8956	SW DIODE 1N4148
D0315	645 016 8956	SW DIODE 1N4148
D0501	645 041 4503	DIODE 1SS133
D0801	645 016 8956	SW DIODE 1N4148
D0802	645 016 8956	SW DIODE 1N4148
FU001	645 014 1447	1.6A APP FUSEDIA5X20 250V, TIME-LAG(PA)(AU)(XE)
FU002	645 026 7925	PROTECTOR,491001(AU)(XE)
IC101	645 016 9182	IC,TU
IC501	645 025 1610	IC LC78622E
IC601	645 025 1603	IC LA9240M
IC602	645 049 5632	IC MM1469XH
IC801	645 049 5649	IC LA1823,TU
JACK1	645 036 4372	ST.PHONE JACK,EJS-7-1535B
L0101	645 049 7100	FERRITE BEAD,CE COILS(AU)(XE)
L0102	645 049 7100	FERRITE BEAD,CE COILS(AU)(XE)
L0501	645 026 7857	AXIAL INDUCTOR
L0502	645 026 7857	AXIAL INDUCTOR,CE(AU)(XE)
L0503	645 026 7857	AXIAL INDUCTOR,CE(AU)(XE)
L0504	645 026 7857	AXIAL INDUCTOR
L0505	645 026 7857	AXIAL INDUCTOR
L0506	645 026 7857	AXIAL INDUCTOR
L0507	645 041 6422	BEAD COIL 25UH,COILS NO.: 846266
L0801	645 020 9338	FM COIL
L0802	645 041 4589	FM COILS
L0803	645 014 1072	FM COIL
L0804	645 049 5656	AM COIL
L0805	645 021 5438	AXIAL INDUCTOR 10UH, CEC24-100K-812025
L0806	645 020 9338	FM COIL
PT001	645 038 0723	PWR TRANS, UL APP TP4820-001A(MX)(US)(CA)
PT001	645 049 8091	PWR TRANS,TP48-0481(PA)
PT001	645 038 2321	PWR TRANS,SAA T48-0345A(AU)(XE)
Q0101	645 016 9205	TRANSISTOR
Q0201	645 016 9205	TRANSISTOR
Q0301	645 036 1937	TR 2SD882
Q0302	645 027 3162	TR 2SD400-F-MPC
Q0502	645 027 7542	TR 2SC1740SR
Q0503	645 025 1627	TR 2SB764E
Q0504	645 016 1841	TRANSISTOR
Q0601	645 025 1634	TR 2SA1317
Q0801	645 041 4473	TR 2SC2999D
Q0802	645 016 9205	TRANSISTOR
R0301	401 089 8909	CARBON 1 JA 1/2W, TU(PA)(MX)(US)(CA)
R0304	401 006 9903	CARBON 100 JA 1/2W,TU
SW301	645 027 7634	SWITCH,TACT,IH-1236A
SW901	645 016 1896	SWITCH,SK23D04 G9
T0801	645 027 7603	OSC COIL,AM OSC
T0802	645 049 5663	AM IFT,OH-827538-00
TC801	645 032 4451	TRIMMER 20PF,PHILIPS
TC802	645 016 6495	TRIMMER,PHILIPS
TD801	645 027 7580	TUNING DIODE SVC 344AA
TD802	645 027 7573	TUNING DIODE SVC 201SPA
TD803	645 027 7573	TUNING DIODE SVC 201SPA
XT501	645 036 3573	CERAMIC RESONATOR
ZD301	645 025 1696	ZENER
ZD302	645 027 7566	ZENER DIODE 5.6V
ZD801	645 036 2804	ZENER 4.7V
	645 022 1590	AC SOCKET,PCB TYPE(PA)(AU)(XE)
	645 020 2919	AC SOCKET HJC-023A, PCB TYPE(MX)(US)(CA)
	645 020 3503	TEST PINS,ANT
	645 049 7131	HEAT SHRINK TUBE,UL DECK(AU)(XE)
	645 049 7131	HEAT SHRINK TUBE,UL FORMER (AU)(XE)
	645 025 2396	SCREW 3X8,FOR Q301(PA)
	645 025 2396	SCREW 3X8,FOR Q301(MX)
	645 025 2396	SCREW 3X8,FOR Q301(US)(CA)
	645 026 5716	NUT M3,FOR Q301(PA)
	645 026 5716	NUT M3,FOR Q301(MX)
	645 026 5716	NUT M3,FOR Q301(US)(CA)
	645 036 2668	HEAT SINK,FOR IC101 (PA)(MX)(US)(CA)
	645 036 2675	HEAT SINK B,FOR Q301
	645 036 2668	HEAT SINK,FOR IC101(AU)(XE)
	645 049 5472	ASSY BAR ANT
	645 036 2163	BAR ANT HOLDER
	645 016 1971	FERRITE BAR
	645 014 2246	FUSE HOLDER,NO:FC-001-N (PA)(AU)(XE)
	645 025 2396	SCREW 3X8,FOR Q301(AU)(XE)
	645 026 5716	NUT M3,FOR Q301(AU)(XE)

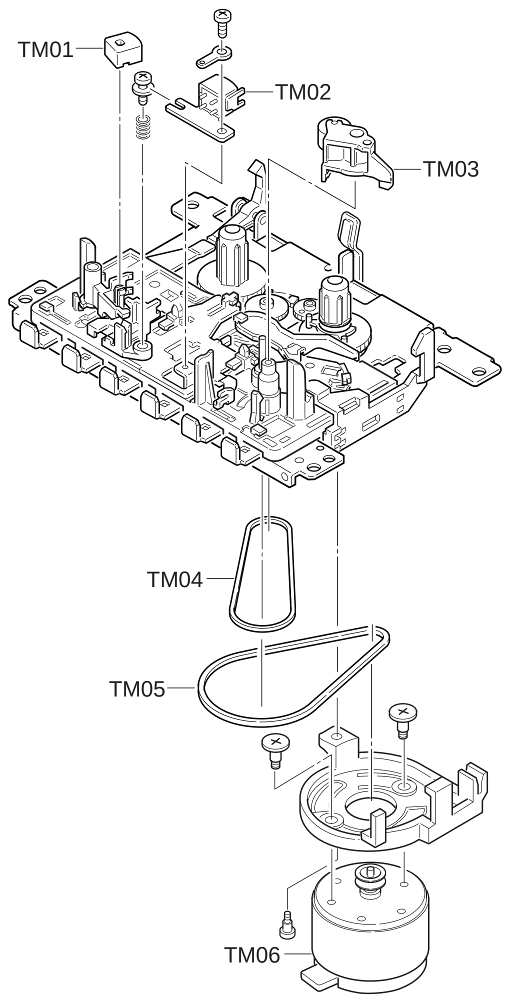
BATTERY P.W.BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
74	614 319 5269	ASSY,PWB BATTERY(Only initial)
	645 020 3206	BATTERY TERMINAL SPRING,(-)

CASS, PRE-AMP P.W.BOARD ASSY

REF.NO.	PART NO.	DESCRIPTION
75	614 319 5276	ASSY,PWB CASS,PRE-AMP(Only initial)
C0705	403 063 0800	POLYESTER 6800P M 50V
C0710	403 061 9003	POLYESTER 4700P M 50V
C0711	403 061 9003	POLYESTER 4700P M 50V
C0714	403 059 4409	POLYESTER 2200P M 50V
C0715	403 058 1904	POLYESTER 1500P M 50V
C0717	403 063 0800	POLYESTER 6800P M 50V
C0721	403 061 9003	POLYESTER 4700P M 50V
C0722	403 061 9003	POLYESTER 4700P M 50V
C0904	403 061 9003	POLYESTER 4700P M 50V
C0905	403 060 1305	POLYESTER 2700P M 50V
C7002	403 059 4409	POLYESTER 2200P M 50V
C7004	403 058 1904	POLYESTER 1500P M 50V
CN010	645 026 8823	8P WAFTR
CN701	645 017 2045	4P WAFER
I7001	645 041 6408	IC TA7668BP,IC7001
Q0701	645 016 9205	TRANSISTOR
Q0901	645 025 1665	TR 2SC3330U
Q0902	645 025 1641	TR 2SA1346-AC
SW701	645 049 5687	SW PUSH,0820250/PS 825
T0901	645 049 6455	BIAS / OSC,AHK809461

EXPLODED VIEW(TAPE DECK MECHANISM)



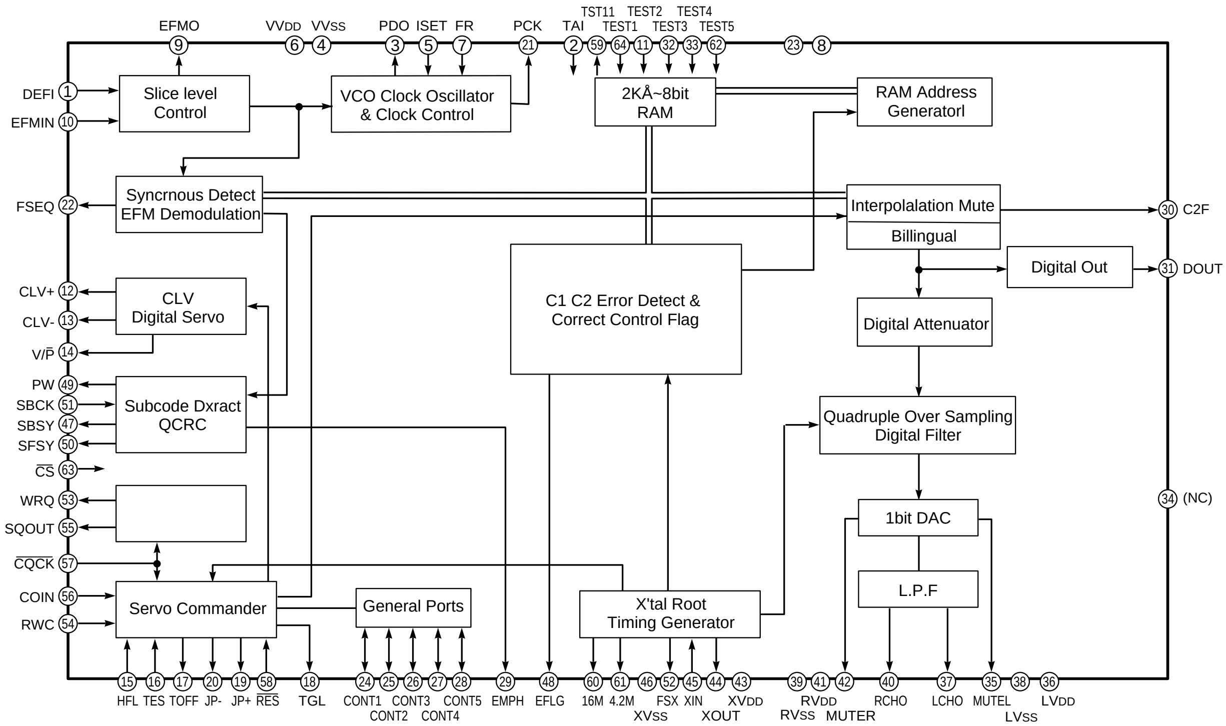
PARTS LIST

CASS MECHANISM, SEMI-AUTO ZY33F 23S

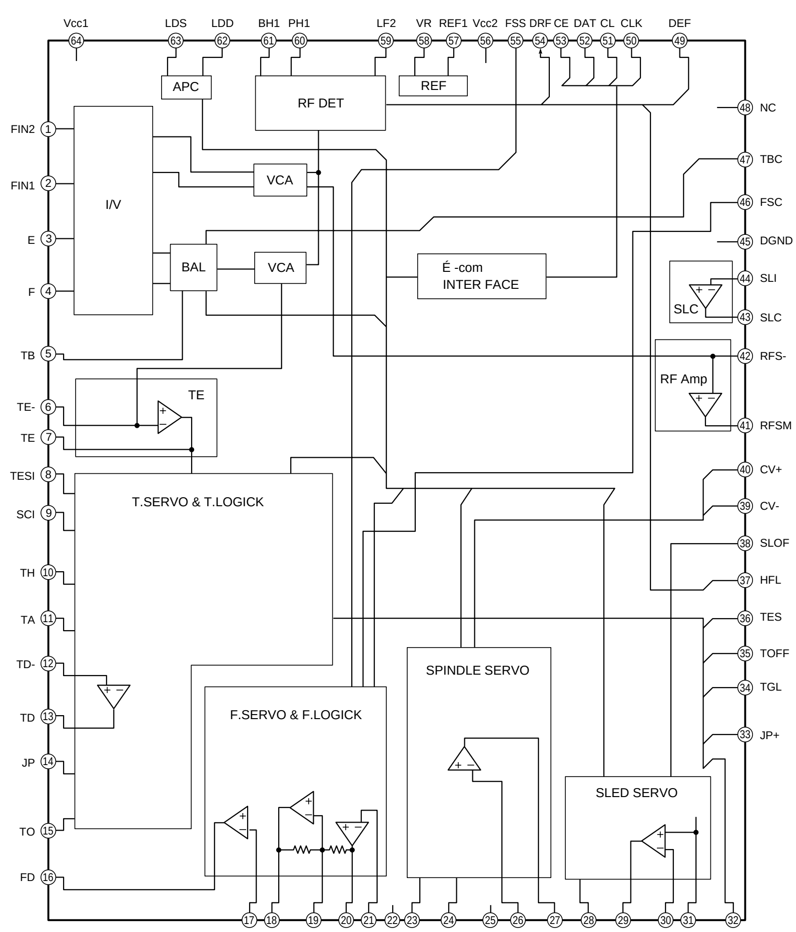
REF.NO.	PART NO.	DESCRIPTION
43	645 049 6448	CASS MECHANISM, SEMI-AUTO ZY33-F 23S
TM01	645 016 5252	MG ERASE
TM02	645 025 2518	R/P HEAD TC-951,STEREO
TM03	645 048 8740	PINCH ROLLER ARM
TM04	645 048 9235	R F BELT
TM05	645 049 6592	MAIN BELT
TM06	645 049 5571	MOTOR ASSY

IC BLOCK DIAGRAM & DESCRIPTION

IC501 LC78622 (Digital Signal Processor)



IC601 LA9240M (Servo Signal Processor)



IC BLOCK DIAGRAM & DESCRIPTION

IC402 LC723369557 (LCD Driver)

MICOM NAME	PIN NO.	I/O	NAME	FUNCTION
XIN	1	I		Connection terminal of crystal oscillation (4.5MHz)
TEST2	2	I		GND.
PG3(S10)	3	I	CD IDATA	CD MECA Communcation Line
PG2(SO0)	4	O	CD ODATA	DSP,ASP Control
PG1(SCLK0)	5	O	CD CLOCK	
PG0	6	O	RWC	RWC Output
PC3	7	O	CD RESET	CD DSP RESET Output
PC2	8	O	Non Connection	
PC1	9	O	Non Connection	
PC0	10	O	Non Connection	
PB3	11	O	Non Connection	
PB2	12	O	BASS BOOST	BASS BOOST Control Output
PB1	13	O	Non Connection	
PB0	14	O	Non Connection	
PA3	15	I	KEY IN	TRNSISTOR/DIODE SW SOURCE Input
PA2	16	I	KEY IN	TRNSISTOR/DIODE SW SOURCE Input
PA1	17	I	WRQ	WRQ Input
PA0	18	I	DRF	DRF Input(H-DL CHATTERING TIME 50MS)
PK3	19	I	JOG VR2	JOG VR Input(CHATTERING TIME 3MS)
PK2	20	I	JOG VR1	Phase Input
PK1	21	I	PICK-INSIDE	PICK-INSIDE Input
PK0(INT0)	22	I	REMOCON Input	REMOCON Input
PN3	23	O	B2	BAND Output
PN2	24	O	B1	
PN1	25	O	MUTE	AUDIO MUTE Output
PN0	26	O	MONO	Compalsion MONO Output
PM3	27	I/O	F1	FUNCTION Input/Output(CHATTERING TIME 40MS)
PM2	28	I/O	F2	
PM1	29	I	STIN	STEREO Input(CHATTERING TIME 40MS)
PM0	30	I	SYNC REC	SYNC REC Input(CHATTERING TIME 40MS)
VDD	31	-	POWER	Power supply
PE3	36	I	SD	SD Input
PE2	37	I	Non Connection	
PE1(S18)	38	O	SEGMENT Output	Display SEGMENT Output
PE0(S17)	39	O	SEGMENT Output	
S21~S24	32~35	O	SEGMENT Output	
S1~S16	40~55	O	SEGMENT Output	
COM3	56	O		
COM2	57	O		
COM1	58	O		
Vdd2	59	I		
Vdd1	60	I		
PJ3	61	O	Non Connection	
PJ2	62	O	VOL CE	VOL IC Control Output
PJ1	63	O	VOL DATA	
PJ0	64	O	VOL CLOCK	
AD0	65	I	AD KEY:AD0	Operating KEY Input
AD1	66	I	AD KEY:AD1	
AD2	67	I	AD KEY:AD2	Destination Input
AD3	68	I	AD KEY:AD3	BASS-X LID SW Input(CHATTERING TIME 40MS)
HOLD	69	I	HOLD	BACK UP MODE Control Outpu
RCTR	70	I	FMIF	
LCTR	71	I	AMIF	
SNS	72	I	Non Connection	
VDD	73	-	POWER	Power supply
FMOSC	74	O		
AMOSC	75	O		
VSS	76	-		Ground
EO1	77	O		
EO2	78	O	Non Connection	
TEST1	79	-		Ground
XOUT	80	O		Connection terminal of crystal oscillation (4.5MHz)

IC BLOCK DIAGRAM & DESCRIPTION

IC501 LC78622 (Digital Signal Processor)

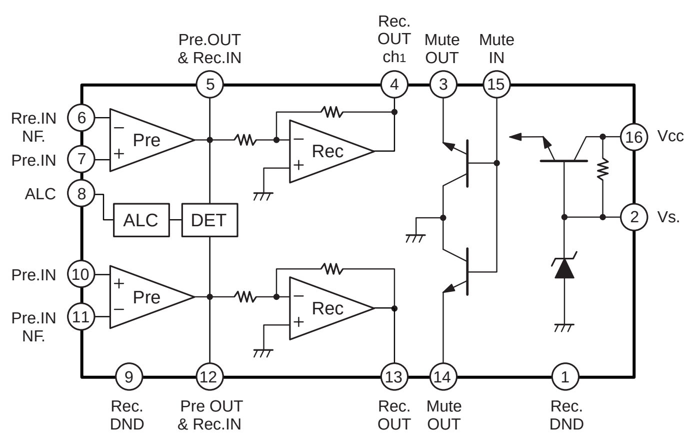
Terminal No.	Terminal symbols	I/O	DESCRIPTION	
1	DEFI	I	Input terminal for defect detection signals (DEF). (Ground when not used.)	
2	TAI	I	For PLL	Input terminal for test. Pull-down resistor incorporated. Make sure to ground.
3	PDO	O		Output terminal for phase-comparator for external VCO control.
4	VVSS	-		Ground terminal for internal VCO. Make sure to ground.
5	ISET	AI		Resistive connection terminal for current regulation of PDO output.
6	VVDD	-		Power terminal for internal VCO.
7	FR	AI		For VCO frequency range control.
8	VSS	-	Ground terminal for digital signals. Make sure to ground.	
9	EFMO	O	For slice level control	Output terminal for EFM signals.
10	EFMIN	I		Input terminal for EFM signals.
11	TEST2	I	Input terminal for test. Pull-down resistor incorporated. Make sure to ground.	
12	CLV+	O	Output for disk motor control. 3 values can be output by a command.	
13	CLV-	O		
14	V/*P	O	Output terminal for automatic switching monitor between rough servo and phase control. (Rough servo on "H"position, phase servo on "L".	
15	HFL	I	Input terminal for track detection signals. Schmitt input.	
16	TEST2	I	Input terminal for tracking error signals. Schmitt input.	
17	TOFF	O	Output terminal for tracking-off.	
18	TGL	O	Output terminal for tracking gain switching. "L" position increases gain.	
19	JP+	O	Output for track jump control. 3 values can be output by a command.	
20	JP-	O		
21	PCK	O	Terminal for clock monitor for EFM data reproduction. 4.3218 MHz when phase locked.	
22	FSEQ	O	Output terminal for synchronizing signal detection. "H" position when the synchronizing signals detected in EFM signals match with the synchronizing signals generated internally.	
23	VDD	-	Power terminal for digital signals.	
24	CONT1	I/O	Generalized I/O terminal 1	Controlled by a serial data command from micro-computer. When not used, either use as input terminal and then ground or use as output terminal and then open circuit.
25	CONT2	I/O	Generalized I/O terminal 2	
26	CONT3	I/O	Generalized I/O terminal 3	
27	CONT4	I/O	Generalized I/O terminal 4	
28	CONT5	I/O	Generalized I/O terminal 5	
29	EMPH/ CONT6	O	Terminal for de-emphasis monitor. De-emphais disk is being reproduced while in the "H" position. Or generalized Output terminal 6.	
30	C2F	O	Output terminal for C2 flag.	
31	DOUT	O	Output terminal for digital OUT. (EIAJ format)	
32	TEST3	I	Input terminal for test. Pull-down resistor incorporated. Make sure to ground.	
33	TEST4	I	Input terminal for test. Pull-down resistor incorporated. Make sure to ground.	
34	PCCL	I	Generalized I/O terminal for command identification. Pull-down resistor incorporated. When used as the same function as LC78622E, open circuit or ground. ("H" position: enables only generalized I/O command to be controlled. "L" position: enables all the c	
35	MUTEL/C ONT7	O	L channel 1-bit DAC	Mute output terminal for L channel. Or generalized output terminal 7.
36	LVDD	-		Power terminal for L channel.
37	LCHO	O		Output terminal for L channel.
38	LVSS	-		Ground terminal for L channel. Make sure to ground.
39	RVSS	-	R channel 1-bit DAC	Ground terminal for R channel. Make sure to ground.
40	RCHO	O		Output terminal for R channel.
41	RVDD	-		Power terminal for R channel.
42	MUTER/C ONT8	O		Mute output terminal for R channel. Or generalized output terminal 8.

IC BLOCK DIAGRAM & DESCRIPTION

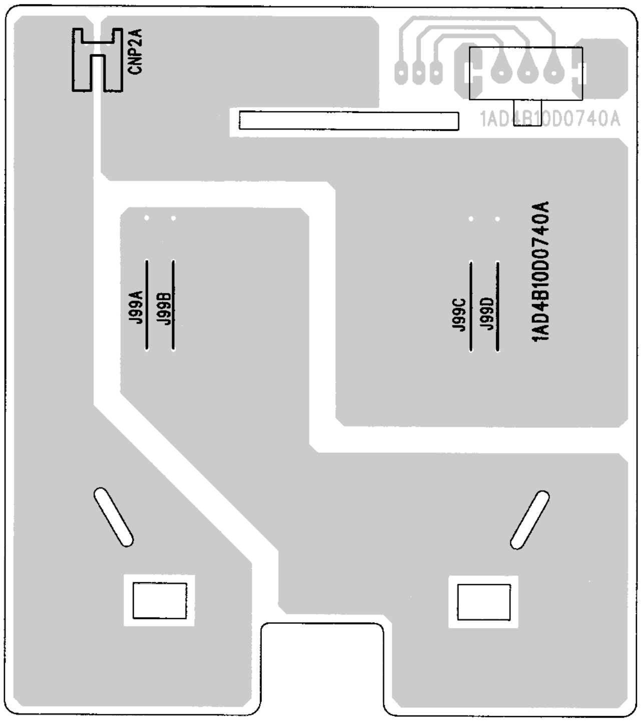
Terminal No.	Terminal symbols	I/O	DESCRIPTION
43	XVDD	-	Power terminal for crystal oscillator
44	XOUT	O	Joining terminal for crystal resonator (16.9344 MHz)
45	XIN	I	
46	XVSS	-	Ground terminal for crystal oscillator. Make sure to ground.
47	SBSY	O	Output terminal for synchronizing signals of sub-code clock.
48	EFLG	O	Monitor terminal for 1 bit or 2 bit error correction
49	PW	O	Output terminal for sub-code P, Q, R, S, T, U or W.
50	SFSY	O	Output terminal for synchronizing signals of sub-code frame. When sub-code is stood by, falls.
51	SBCK	I	Input terminal for clock to read out sub-code. Schmitt input (when not used, make sure to ground.)
52	FSX	O	Output terminal for synchronizing signal (7.35 kHz) which is divided from crystal oscillator.
53	WRQ	O	Output terminal for Q output standby of sub-code.
54	RWC	I	Input terminal for read/write control. Schmitt input.
55	SQOUT	O	Output terminal for Q output of sub-code.
56	COIN	I	Input terminal for command from micro-computer.
57	*CQCK	I	Input terminal either for clock to take in command input or for clock to take out sub-code from SQOUT. Schmitt input.
58	*RES	I	Input terminal for reseting this LSI. Switches to "L" position for a moment at power-on.
59	TST11	O	Output terminal for test. Make sure to open circuit. (Normally "L" output)
60	16M	O	Output terminal of 16.9344 MHz
61	4.2M	O	Output terminal of 4.2336 MHz
62	TEST5	I	Input terminal for test. Pull-down resistor incorporated. Make sure to ground.
63	*CS	I	Input terminal for chip selecting. Pull-down resistor incorporated. Make sure to ground when not controlled.
64	TEST1	I	Input terminal for test. No pull-down resistor. Make sure to ground.

Note: Each power terminal (VDD, VVDD, LVDD, RVDD and XVDD) must be supplied with the same voltage.

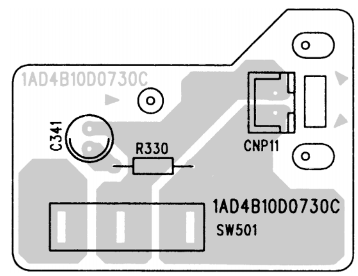
I7001 TA7668BP (PRE AMP W/2ch ALC)



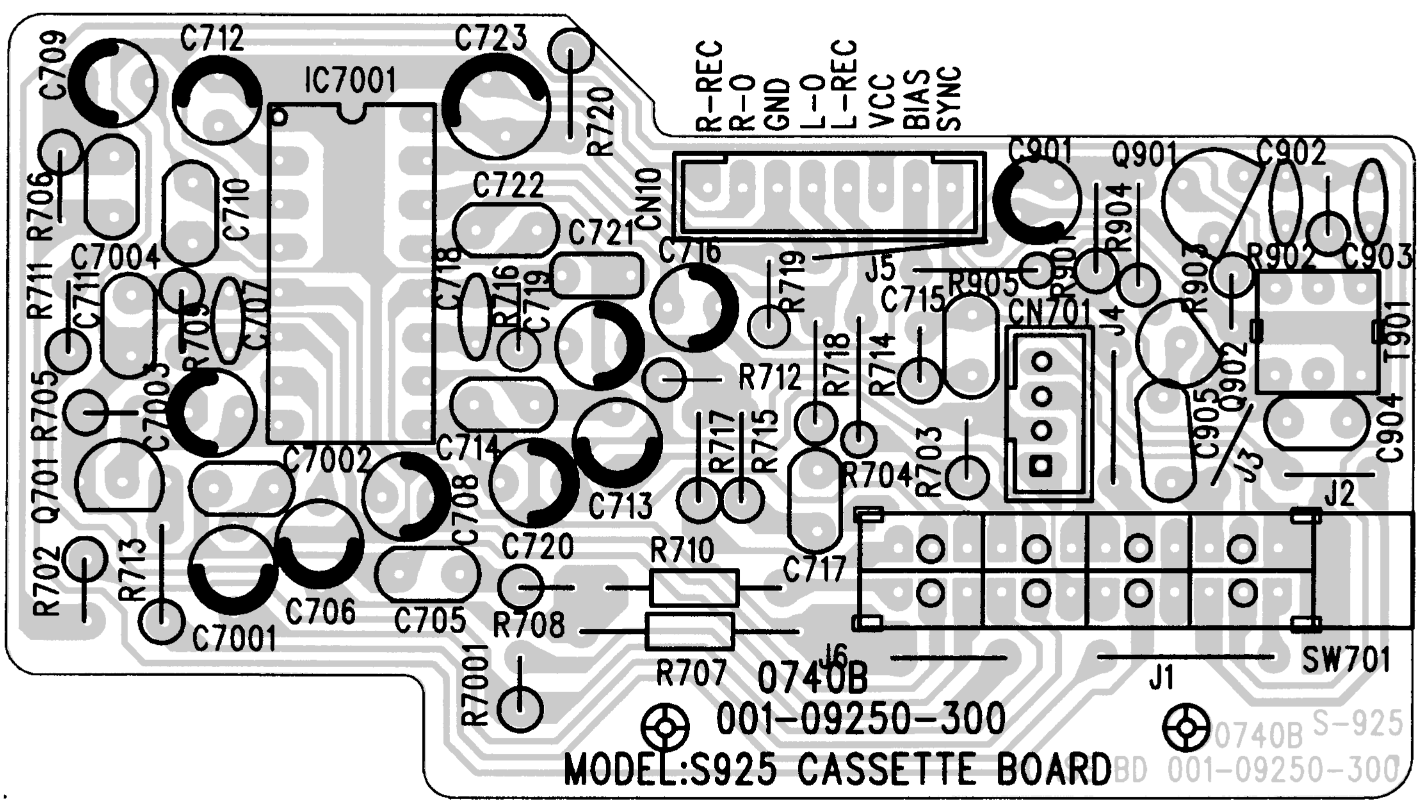
WIRING DIAGRAM (BATTERY,CD SW,CASS PE-AMP)



BATTERY

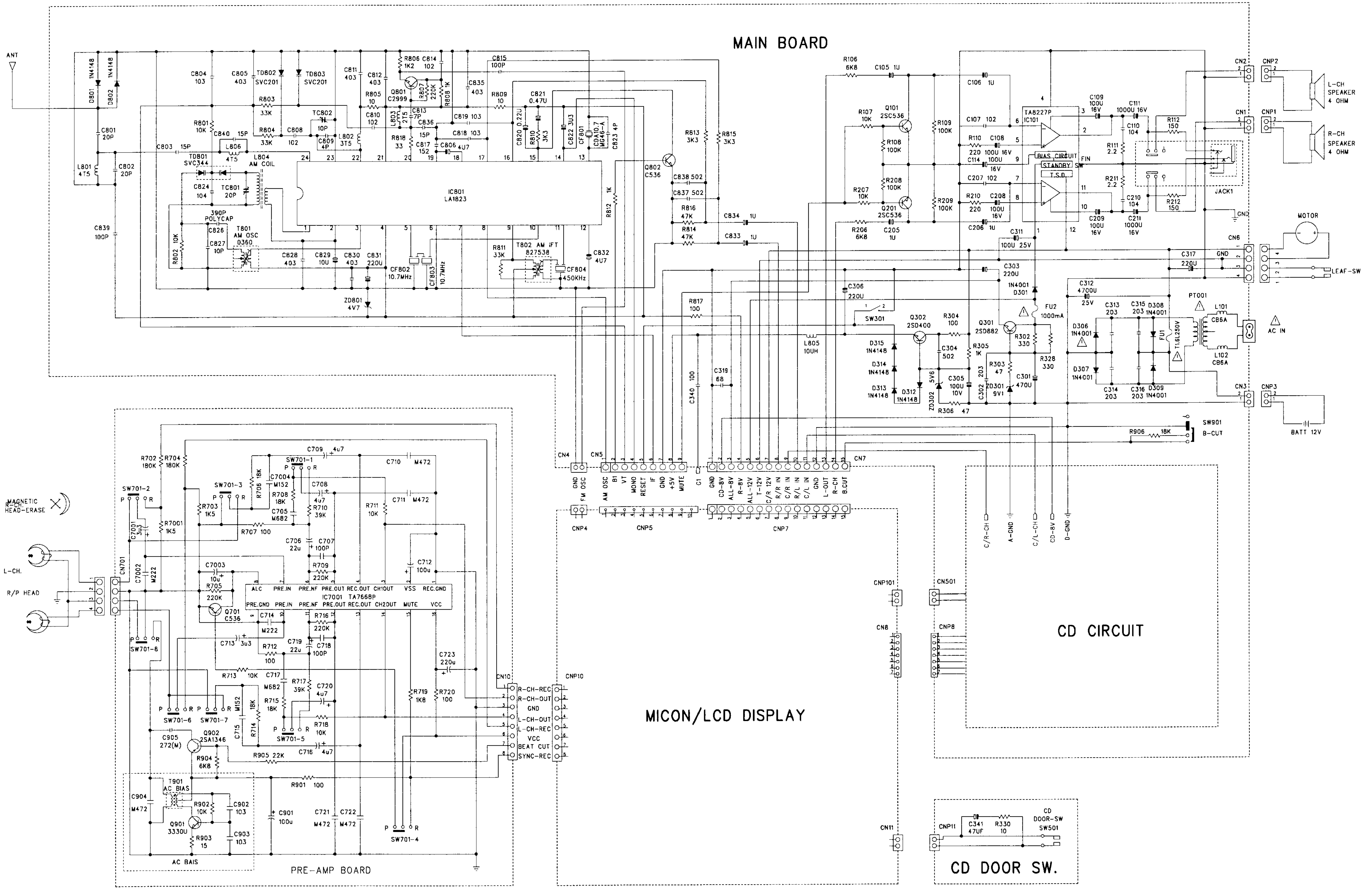


CD SW



CASS PRE-AMP

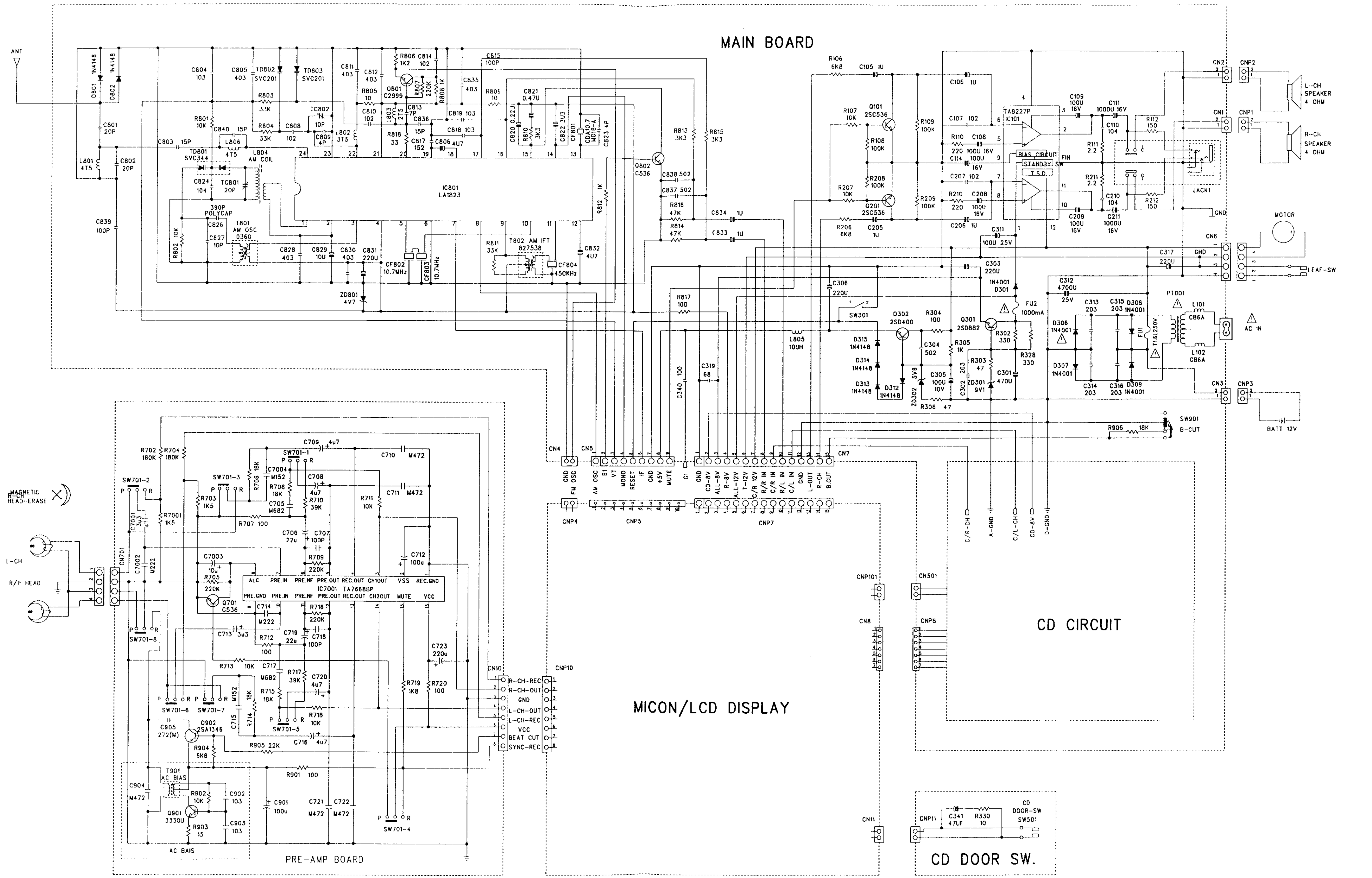
SCHEMATIC DIAGRAM (MAIN for US,CA,MX)



Parts marked with this sign are safety critical cpmponents. They must always be replaced with identical components refer to the appropriate parts list and ensure exact replacement.

This is a basic schematic diagram.

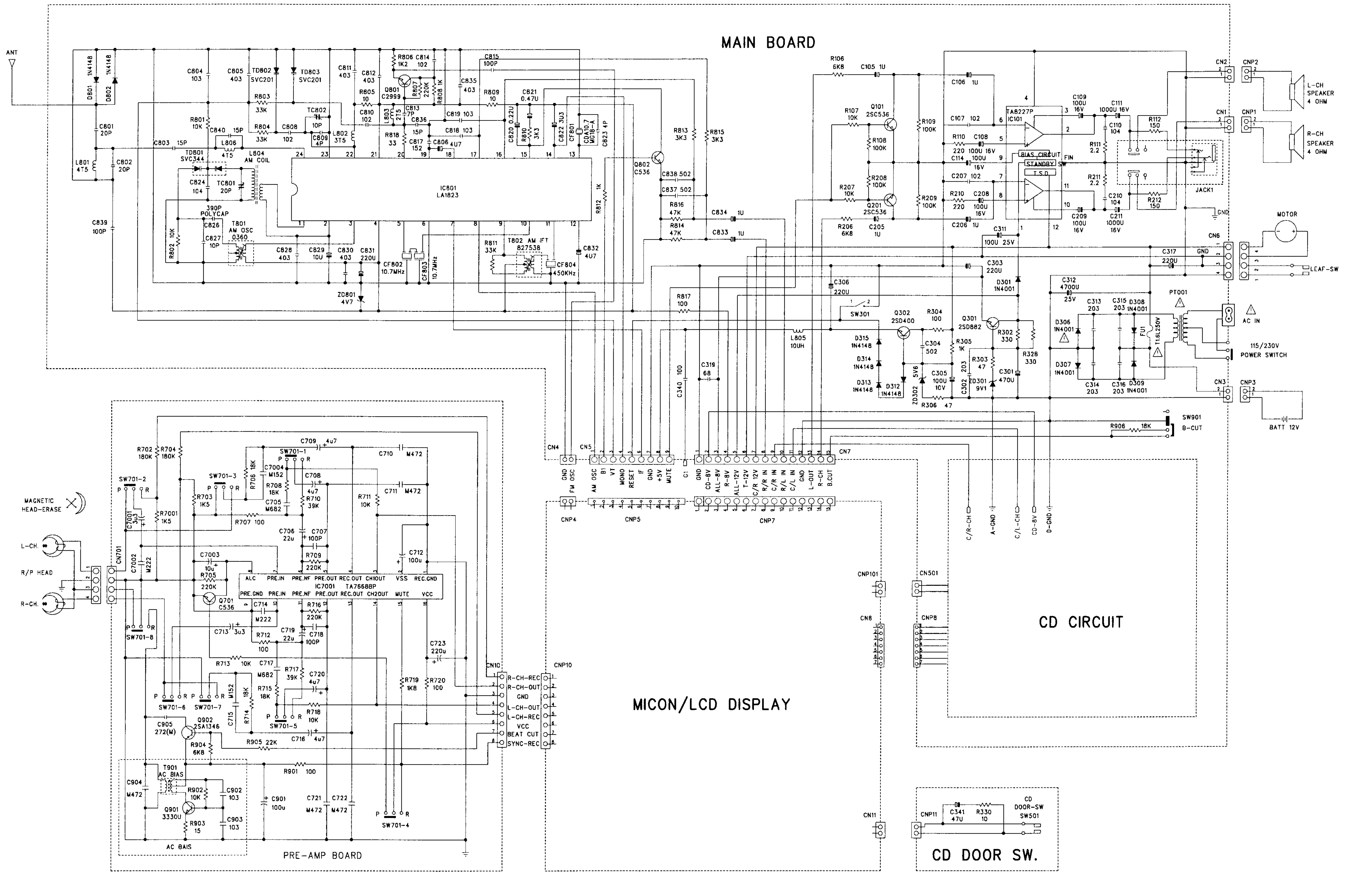
SCHEMATIC DIAGRAM (MAIN for AU,XE)



⚠ Parts marked with this sign are safety critical components. They must always be replaced with identical components refer to the appropriate parts list and ensure exact replacement.

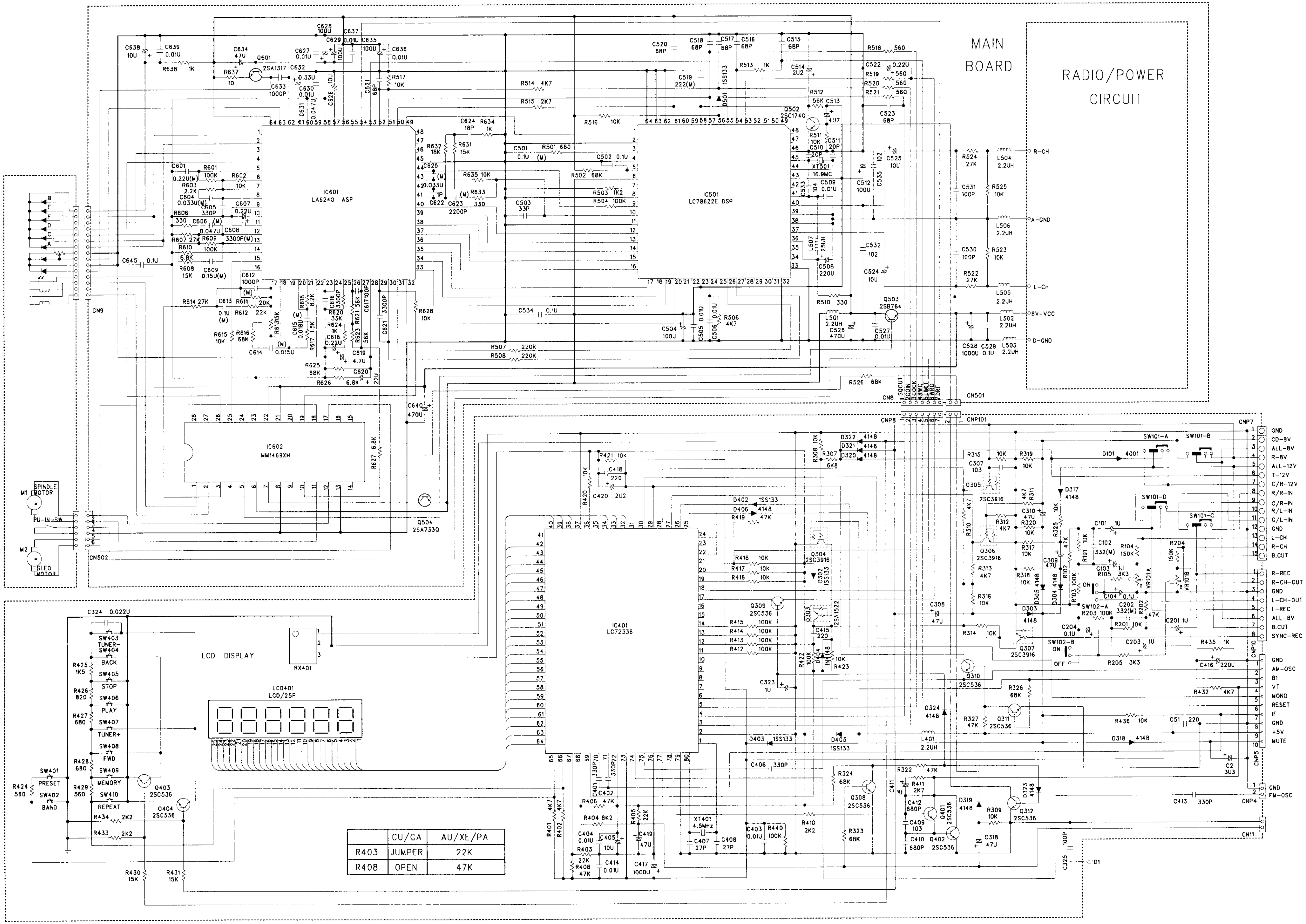
This is a basic schematic diagram.

SCHEMATIC DIAGRAM (MAIN for PA)



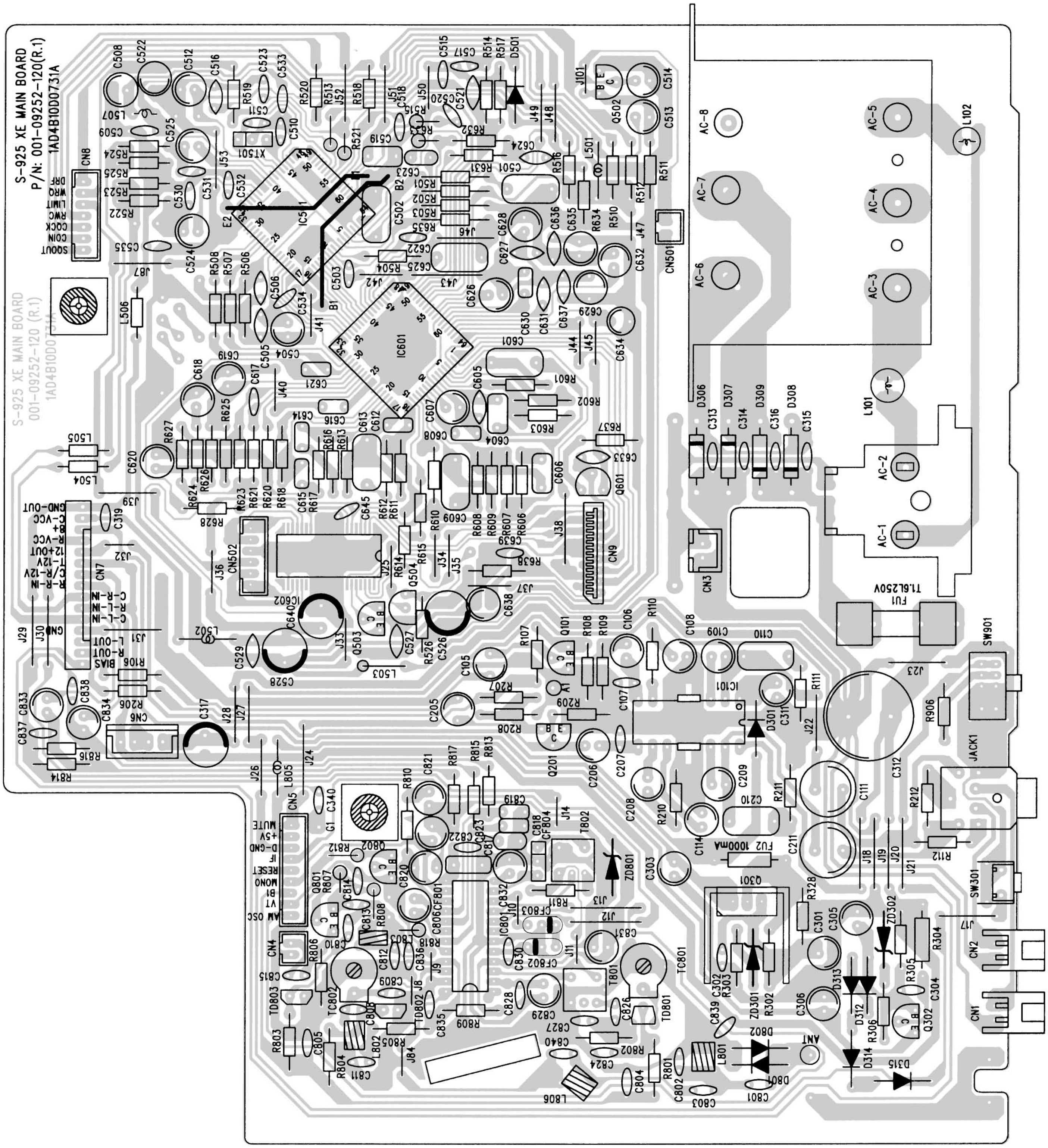
⚠ Parts marked with this sign are safety critical cpmponents. They must always be replaced with identical components refer to the appropriate parts list and ensure exact replacement.

This is a basic schematic diagram.



	CU/CA	AU/XE/PA
R403	JUMPER	22K
R408	OPEN	47K

This is a basic schematic diagram.



VOLTAGE OF IC & TRANSISTOR

IC801 LA1823

(V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
AM	*1.26*	*1.26*	*5.28*	*5.2*	*2.96*	*0*	*0*	*5.87*	*5.28*	*1.26*	*1.26*	*0.6*	*4.7*	*0.75*	*0*	*1.35*
FM	*1.27*	*1.27*	*5.27*	*5.27*	*2.76*	*0*	*0*	*0.07*	*5.28*	*1.27*	*1.27*	*1.27*	*4.49*	*4.58*	*4.57*	*1.34*
Pin No.	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**								
AM	*1.35*	*1.2*	*0.43*	*5.26*	*5.26*	*5.26*	*0*	*0*								
FM	*1.34*	*1.24*	*0.75*	*5.21*	*5.21*	*5.21*	*0*	*1.11*								

IC701 TA7668

(V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Voltage	*0.02*	*0*	*0.02*	*0.03*	*0.04*	*1.26*	*0.02*	*0.02*	*0*	*0.01*	*1.27*	*1.33*	*3.31*	*0*	*2*	*8.8*

IC101 TA8227

(V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12
Voltage	*13*	*6.8*	*12.7*	*0*	*0.5*	*0.01*	*0.01*	*0.59*	*6.9*	*12*	*6.9*	*13.7*

IC401 LC72336

(V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Voltage	*2.24*	*0*	*0*	*0.01*	*3.32*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Pin No.	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**
Voltage	*0*	*0.06*	*4.67*	*4.67*	*4.67*	*4.65*	*0*	*0*	*0*	*4.6*	*4.06*	*0*	*4.7*	*4.05*	*4.6*	*2.28*
Pin No.	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**
Voltage	*2.28*	*2.28*	*2.28*	*0*	*0*	*2.29*	*2.3*	*2.3*	2.29	2.29	2.29	2.29	2.29	2.28	2.29	2.28
Pin No.	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**	**61**	**62**	**63**	**64**
Voltage	*2.29*	*2.28*	*2.28*	*2.28*	*2.28*	*2.28*	*2.28*	*2.27*	2.26	2.27	1.52	3.01	0	0	0	0

IC601 LA9240M

(V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Voltage	*2.6*	*0*	*2.6*	*0*	*0*	*0*	*2.6*	*2.6*	*2.6*	*2.6*	*2.6*	*2.6*	*0*	*2.5*	*0*	*2.6*
Pin No.	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**
Voltage	*2.5*	*2.6*	*2.6*	*2.6*	*2.6*	*2.6*	*0.12*	*2.5*	*2.5*	*2.5*	*2.6*	*2.9*	*2.6*	*2.7*	*2.4*	*2.4*
Pin No.	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**
Voltage	*0.11*	*0.11*	*5*	*0.12*	*1.8*	*0.16*	*0.11*	*0.13*	0.45	2.5	2.5	2.6	0.13	2.6	2.6	0
Pin No.	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**	**61**	**62**	**63**	**64**
Voltage	*0.15*	*2.4*	*4.3*	*0.3*	*0*	*4.9*	*0.19*	*5*	2.6	2.6	3.3	3.3	2.3	3.8	0.3	5

IC501 LC78622E

(V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Voltage	*0.13*	*0*	*1.6*	*0.12*	*1.67*	*5*	*0.44*	*0.15*	*2.57*	*2.6*	*0.12*	*0.5*	*0.1*	*0.1*	*0.15*	*1.9*
Pin No.	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**
Voltage	*0.11*	*5*	*0.12*	*0.12*	*2.5*	*5*	*5*	*4.8*	*0.6*	*0.12*	*0.12*	*4.8*	*0.11*	*0.11*	*0.5*	*0.12*
Pin No.	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**
Voltage	*0.12*	*0*	*0.12*	*4.6*	*2*	*0*	*0*	*2*	4.6	0.12	5	2.2	2.2	0.12	0.2	0.12
Pin No.	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**	**61**	**62**	**63**	**64**
Voltage	*0.2*	*2.5*	*0.44*	*2.5*	*2.5*	*0*	*0.16*	*0.9*	4.3	5	0.12	2.5	2.3	0.12	0.12	0.12

IC602 MM1469

(V)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Voltage	*4.3*	*4.3*	*2.67*	*2.67*	*8.6*	*5.2*	*5.2*	*0.06*	*2.67*	*2.67*	*4.3*	*4.3*	*0.06*	*8.7*	*0.65*	*0.67*
Pin No.	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**				
Voltage	*4.32*	*4.3*	*2.67*	*2.67*	*9.27*	*9.27*	*2.67*	*2.67*	*2.67*	*4.3*	*4.3*	*0.06*				

Transistors

(V)

Transistor No.	Q801(C2999)			Q802(C536)			Q901(3330U)			Q902(2SA1346)			Q701(C536)			Q101(2SD1936)			Q201(2SD1936)		
Pin Name	**E**	**B**	**C**	**E**	**B**	**C**	**E**	**B**	**C**	**E**	**B**	**C**	**E**	**B**	**C**	**E**	**B**	**C**	**E**	**B**	**C**
Voltage	*1.03*	*1.76*	*4.1*	*0.01*	*0*	*4.29*	*0*	*0*	*4.9*	*0*	*0*	*0*	*0*	*0.65*	*0*	*0*	*0*	*0*	*0*	*0*	*0*

Transistor No.	Q301(2SD882)			Q302(2SD400)			Q403(C536)			Q305(3916)			Q306(3916)			Q308(C536)			Q309(C536)		
Pin Name	**E**	**B**	**C**	**E**	**B**	**C**	**E**	**B**	**C**	**E**	**B**	**C**	**E**	**B**	**C**	**E**	**B**	**C**	**E**	**B**	**C**
Voltage	*9.53*	*10.17*	*13.7*	*5.34*	*5.97*	*12.4*	*0*	*0.02*	*1.75*	*0*	*9.5*	*0*	*0*	*0.06*	*4.05*	*0*	*0.6*	*0*	*0.35*	*0*	*4.67*

Transistor No.	Q312(C536)			Q303(1522)			Q304(3916)			Q307(3914)			Q401(C536)			Q402(C536)			Q404(C536)		
Pin Name	**E**	**B**	**C**	**E**	**B**	**C**	**E**	**B**	**C**	**E**	**B**	**C**	**E**	**B**	**C**	**E**	**B**	**C**	**E**	**B**	**C**
Voltage	*0*	*0.12*	*0.5*	*4.07*	*0*	*4.05*	*0*	*3.99*	*0*	*0*	*0*	*4.05*	*0*	*0*	*13.6*	*0.01*	*0.01*	*13.7*	*0*	*0.66*	*0*

Transistor No.	Q310(C536)			Q311(C536)			Q601(1317)			Q502(1740)			Q503(B764)			Q504(A733)		
Pin Name	**E**	**B**	**C**	**E**	**B**	**C**	**E**	**B**	**C**	**E**	**B**	**C**	**E**	**B**	**C**	**E**	**B**	**C**
Voltage	*4.69*	*5.19*	*4.69*	*0*	*0*	*5.19*	*4.6*	*3.9*	*2*	*0.05*	*0.05*	*5.16*	*9.3*	*8.7*	*5.1*	*5.1*	*4.57*	*5.14*

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